

REMARKS

The Office Action mailed March 27, 2003 has been reviewed and the comments of the Patent and Trademark Office have been considered. Claims 1-19 were pending. Claims 2-5, 9-11 and 16-19 have been cancelled without prejudice or disclaimer. Claims 1, 8 and 15 have been amended. Claims 1, 6-8, and 12-15 remain pending for consideration.

Rejections under 35 U.S.C. § 103

Claims 1-19 stand rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,289,293 to Kato et al. (hereafter "Kato") in view of U.S. Patent No. 5,323,235 to Tonomura et al. (hereafter "Tonomura"). Applicant respectfully traverses these rejections for at least the following reasons.

Independent claims 1, 8 and 15 have all been amended to recite that "said first aspect ratio is 16:9 and said second aspect ratio is 4:3." In claim 1, the first picture data has a first aspect ratio, and the enlarged picture has a second aspect ratio. In claim 8, the picture data has a first aspect ratio, and the enlarged frame has a second aspect ratio. In claim 15, the first picture data has a first aspect ratio, and the enlarged frame has a second aspect ratio. All of these claims include an element which displays the enlarged picture or enlarged frame. Thus, the picture convert apparatus as recited in all of claims 1, 8 and 15 is directed to displaying picture data with an aspect ratio of 16:9 on a display with an aspect ratio of 4:3, and thus converts from 16:9 to 4:3 aspect ratio. The Office Action alleges that it would have been obvious to modify Kato's conversion apparatus to include Tonomura's aspect ratio conversion techniques. Applicant submits, however, that even if there were motivation (which there is not) to modify Kato using Tonomura's aspect ratio conversion techniques, the modified Kato apparatus would not meet the limitations of the claims.

The Tonomura disclosure is directed to aspect ratio conversion from 4:3 to 16:9 (see abstract, for example), not 16:9 to 4:3 as in the apparatus of claims 1, 8 and 15. Tonomura discloses techniques for correcting problems that occur specifically when the

aspect ratio of a picture is converted from 4:3 to 16:9, but suggests no solutions for converting from 16:9 to 4:3. Thus, even if Kato were modified to include the picture conversion techniques of Tonomura, the resultant apparatus would provide aspect ratio conversion from 4:3 to 16:9, and accordingly, would not meet the limitations of claims 1, 8 and 15.

Moreover, claims 1, 8 and 15 all require that the second picture data or frame, as recited in these claims, has a reduced number of lines sandwiched between two black areas, and enlarging the second picture data or frame. Thus in all of claims 1, 8 and 15 the two black areas are introduced before enlarging the second picture data or frame. As discussed in the last Reply of February 3, 2003, Kato does not disclose converted picture data that has an area with a reduced number of lines sandwiched between two black areas.

Tonomura fails to cure the deficiencies of Kato. Tonomura does not disclose second picture data or a frame having a reduced number of lines sandwiched between two black areas, and enlarging the second picture data or frame. Tonomura disclose adding side panels 22 to a compressed picture 21 (Figures 8d and 9d, col. 6, lines 10-13). After these side panels 22 are added, however, the compressed picture 21 and side panels 22 are not then enlarged. Thus, even if the side panels of Tonomura could be considered to correspond to the black areas as recited in the claims, Tonomura does not suggest enlarging picture data or a frame with a reduced number of lines sandwiched between two black areas. Thus, even if combined, Kato and Tonomura would not suggest the presently recited invention of claims 1, 8 and 15.

Moreover, the inventions as claimed in claims 1, 8 and 15, where picture data with a reduced number of lines is sandwiched between two black areas and then enlarged, reduces the load on the CPU in processing (see present specification, page 3, lines 10-14, page 11, lines 8-17, for example). Neither Kato nor Tonomura suggest this advantage or the structure necessary therefore.

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For at least the above reasons, applicant submits that claims 1, 8 and 15 are patentable over Kato and Tonomura. Claims 6, 7, and 12-14 depend from one of claims 1 and 8 and are patentable for at least the same reasons, as well as for patentable features recited therein. Accordingly, applicant respectfully requests that the rejections under 35 U.S.C. 103 be withdrawn.

CONCLUSION

In view of the foregoing remarks, applicant respectfully submits that all of the pending claims are now in condition for allowance. An early notice to this effect is earnestly solicited. If there are any questions regarding the application, the Examiner is invited to contact the undersigned at the number below.

Respectfully submitted,

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Should additional fees be necessary in connection with the filing of this paper, or if a petition for extension of time is required for timely acceptance of same, the Commissioner is hereby authorized to charge Deposit Account No. 19-0741 for any such fees; and applicant(s) hereby petition for any needed extension of time.

Versions with Markings to Show Changes Made

In the Claims:

1. (Twice Amended) A picture convert apparatus comprising:
a first element which inputs a first picture data and produces a second picture data consisting of a first black area, a second black area and an area consisting of a reduced number of lines of said first picture, the reduced number of lines being half a number of lines of the first picture;
a second element which enlarges said second picture data to provide an enlarged picture, the enlarged picture being enlarged 3/2 times relative to the second picture data in the vertical direction; and
a third element which displays said enlarged picture, and
wherein said first picture data has a first aspect ratio, and said enlarged picture has a second aspect ratio which is different from said first aspect ratio, and wherein said area consisting of the reduced number of lines is sandwiched between said first black area and said second black area, wherein said first aspect ratio is 16:9 and said second aspect ratio is 4:3.

8. (Twice Amended) A picture convert apparatus comprising:
a first element which produces a first black area;
a second element which reduces the line number of a picture data to a predetermined line number, the predetermined line number being half the line number of the picture data;
a third element which produces a second black area;
a fourth element which forms said first black area, said reduced numbers of lines and said second black area to a frame;
a fifth element which enlarges said frame, the enlarged frame being enlarged 3/2 times relative to the frame in the vertical direction; and
a sixth element which displays said enlarged frame, and

wherein said picture data has a first aspect ratio, and said enlarged frame has a second aspect ratio which is different from said first aspect ratio, and wherein said reduced number of lines is sandwiched between said first black area and said second black area, wherein said first aspect ratio is 16:9 and said second aspect ratio is 4:3.

15. (Twice Amended) A method for converting a first picture data to a second picture data, comprising:

producing a first black area;

reducing the line number of said first picture data to a predetermined line number, the predetermined line number being half the line number of the picture data;

producing a second black area;

forming said first black area, said reduced numbers of lines and said second black area to a frame;

enlarging said frame, the enlarged frame being enlarged $3/2$ times relative to the frame in the vertical direction; and

displaying said enlarged frame on a display, and

wherein said first picture data has a first aspect ratio, and said enlarged frame has a second aspect ratio which is different from said first aspect ratio, and wherein said reduced number of lines is sandwiched between said first black area and said second black area, wherein said first aspect ratio is 16:9 and said second aspect ratio is 4:3.